USB/Ethernet
DSL Modem
With Routing Capabilities

Model # GT701C

The new Actiontec USB/Ethernet DSL Modem with Routing Capabilities is really two devices rolled into one. It's a full rate ADSL2/2+ modem. And it's a router, capable of networking up to two computers, via wired ports, and even more using a switch or hub, with a minimum amount of hassle. So, get rid of the clutter of components on your desk and replace them all with the Actiontec USB/Ethernet DSL Modem with Routing Capabilities.

ADSL2/2+

ADSL2/2+ is the DSL standard that enhances modem performance by tripling the available bandwidth (from 8 Mbps to 24 Mbps). Say goodbye to stuttering, pixilated video streams and the endless wait while downloading large files. There's more room for voice data, as well, so you can experience free or low-cost Internet telephone conversations.

Leading Chipset Architecture

The DSL Modem includes TI's TNETD7200 Broadband Communication Processor and Peripherals. The TNETD7200 is the industry's most densely integrated system-on-a-chip ever offered to the ADSL CPE market by Texas Instruments. The TNETD7200 is considered an ADSL bridge/router solution, integrating a broadband communications processor and peripherals, ADSL physical layer, ADSL line driver, USB physical layer, and Ethernet physical layer.

Features

- Supports UPnP Plug-and-Play installation for systems with Windows Operating Systems (98, 98SE, Me, 2000 and XP)

- Support One ADSL2+ WAN port (RJ11)

- Compliant with full-rate ANSI T1.413 Issue 2, ITU G.992.1 (G.dmt) and G.992.2(G.lite) standard

- Auto-handshake for different ADSL flavors

- Compliant with USB 1.1 device specification

- Supports 12-Mbits/s USB data rate (Full Speed)

- Bridged Ethernet over ATM, PPP over ATM, PPP over Ethernet

- Precise ATM traffic shaping

- IP packet routing and transparent bridge

- Routing protocol supports RIP-1, RIP-2, Static Routing

- Build-in NAT, DHCP server

- DNS relay support

- PAP/CHAP authentication, administrative passwords through Telnet

- Compliant with IEEE 802.3 Ethernet standard

- Supports One 10/100 Base-T Ethernet LAN port

- Flow control support for Fast Ethernet

- Web-based configuration setup

- Default configuration backup restore

- FTP firmware upgradeable

- Support web download

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Technical Specifications

Features	Descriptions
ADSL	ITU G.992.1 (G.dmt), G.992.2 (G.Lite), G.994.1 (G.hs), G.992.3 (G.dmt.bis)**, G.992.4 (G.lite.bis)**, G.992.5 (ADSL2plus)** ANSI T1.413 Issue2 ** available in future firmware upgrade
ATM	ATM User-Network Interface, Version 3.1, Section 3. The ATM Forum, 1995. – The full VPI range (0 – 4095) and VCI range (1 – 65535) are supported. – Adaptation Layers AAL5, AAL2 and AAL0 are supported. – The traffic shaping function supports traffic classes CBR, VBR (real time and non-real time) and UBR (with PCR limiting).
OAM	ITU-T Recommendation I.610 B-ISDN Operation and Maintenance Principles and Operations. – F5 segment and end-to-end loopback cells
Ethernet	ISO/IEC 8802-3; ANSI/IEEE standard 802.3 part 3 – IEEE 802.3x – Full Duplex capable – IEEE 802.3u – Auto negotiation RFC 1213 S K. McCloghrie, M. Rose, "Management Information Base for Network management of TCP/IP-based internet: MIB-II", 03/26/1991 D-I-X, "The Ethernet - A Local Area Network: Data Link Layer and Physical Layer Specifications", Digital, Intel, and Xerox, November 1982.
Bridge	Transparent MAC level bridge for Ethernet-like devices in conformance with the IEEE802.1d specification. ISO/IEC 10038:1993 (E), Std 802.1D. RFC1213 S K. McCloghrie, M. Rose, "Management Information Base for Network Management of TCP/IP-based internet: MIB-II", 03/26/1991. RFC1493 Definitions of Managed Objects for Bridges. E. Decker, P. Langille, A. Rijsinghani, & K. McCloghrie. July 1993.
IP	RFC 791, Internet Protocol. J. Postel. Sep-01-1981. RFC 950, Internet Standard Subnetting Procedure. J.C. Mogul, J. Postel. Aug-01- 1985. RFC 1122, Requirements for Internet hosts – communication layers. R.T. Braden. Oct-01-1989. RFC 1191, Path MTU discovery. J.C. Mogul, S.E. Deering. Nov-01-1990. RFC 1213, Management Information Base for Network Management of TCP/IP-based Internet: MIB-II. K. McCloghrie, M.T. Rose. Mar-01-1991. RFC 894, Standard for the transmission of IP datagrams over Ethernet networks. C. Hornig. Apr-01-1984.
ARP	RFC 826, Ethernet Address Resolution Protocol: Or converting network protocol addresses to 48.bit Ethernet address for transmission on Ethernet hardware. D.C. Plummer. Nov-01-1982.

ICMP	RFC 792, Internet Control Message Protocol. J. Postel. Sep-01-1981.
UDP	RFC 768, User Datagram Protocol. J. Postel. Aug-28-1980.
TCP	RFC 793, Transmission Control Protocol. J. Postel. Sep-01-1981.
IP Router	Support Static Route Support unnumbered and VIP mode
RIP	RFC 1058, Routing Information Protocol. C.L. Hedrick. Jun-01-1988. RFC 1723, RIP Version 2 - Carrying Additional Information. G. Malkin. November 1994. RFC 2453, RIP Version 2. G. Malkin. November 1998. RFC 1812, Requirements for IP Version 4 Routers. F. Baker. June 1995. RFC 1191, Path MTU discovery. J.C. Mogul, S.E. Deering. Nov-01-1990.
DHCP Server	RFC 2131: Dynamic Host Configuration Protocol: R. Droms, March 1997. RFC 2132: DHCP Options and BOOTP Vendor Extensions: S. Alexander, March 1997.
DHCP Client	RFC 2131: Dynamic Host Configuration Protocol: R. Droms, March 1997. RFC 2132: DHCP Options and BOOTP Vendor Extensions: S. Alexander, March 1997. The DHCP client supports the following minimal subset of options described in RFC2132: – Requested IP Address (requested by default; is mandatory) – Parameter Request list (subnet-mask only) – IP Address Lease time (dhcp-lease-time) – Client-identifier (dhcp-client-identifier) – Default route (routers) – DNS servers
DNS Relay	RFC 1035, Domain names - implementation and specification. P.V. Mockapetris. Nov-01-1987.
NAT, PAT (IP Masquerading)	RFC2663, "IP Network Address Translator (NAT) Terminology and Considerations, P.Srisuresh, M.Holdrege. August 1999. RFC3022, Traditional IP Network Address Translator (Traditional NAT). P. Srisuresh, K. Egevang. January 2001.
NAT ALGs (Application Level Gateway) (NAT Pass Through)	FTP (over NATP) Netmeeting IPSec PPTP Gaming
NAT advanced features	Port Forwarding DMZ Service Blocking Web site blocking Web Activity Log

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Technical Specifications (cont)

Firewall	Stateful Firewall: multiple security levels. Basic IDS: Stateful Packet Inspection for prevention of Denial of Service (DoS) attacks.
Universal Plug and Play (UPnP)	Internet Gateway Device (IGD) Standardized Device Control Protocol V 1.0, 11/12/2001.
PPP	**LCP** RFC1661 W. Simpson, "The Point-to-Point Protocol (PPP)", 07/21/1994. RFC1570 W. Simpson, "PPP LCP Extensions", 01/11/1994. **PAP** RFC1334 W Simpson, "PPP Authentication Protocols", 09/1992 **CHAP** RFC1994 W. Simpson, "PPP Challenge Handshake Authentication Protocol (CHAP)", 08/30/1996. **IPCP** RFC1332 G. McGregor, "The PPP Internet Protocol Control Protocol (IPCP)", 05/26/1992. **BCP** RFC1638 F. Baker, R. Bowen, "PPP Bridging Control Protocol (BCP)", 06/09/1994.
PPPoA	RFC 2364, PPP Over AAL5. G. Gross, M. Kaycee, A. Lin, A. Malis, J. Stephens, July 1998.
PPPoE	RFC 2516, Method for Transmitting PPP Over Ethernet (PPPoE). L. Mamakos, K. Lidl, J. Evarts, D. Carrel, D. Simone, R. Wheeler. February 1999.
RFC1483	Supports bridged 802.3 Ethernet frames over an ATM network. • LLC encapsulation, in which an LLC/SNAP header is prepended to the (Ethernet) frame • VC multiplexing, in which a null two byte header is prepended to the frame. Default is LLC encapsulation; VC multiplexing can be configured using console command or WEB configuration. • RFC1483 J. Heinanen, "Multiprotocol Encapsulation over ATM Adaptation Layer 5", 07/20/1993. • RFC1213 S K. McCloghrie, M. Rose, "Management Information Base for Network Management of TCP/IP-based internet: MIB-II", 03/26/1991. • RFC 2684, Multiprotocol Encapsulation over ATM Adaptation Layer 5. D. Grossman, J. Heinanen. September 1999.
TELNET	RFC 854 Telnet Protocol specification. J. Postel, J.K. Reynolds. May-01-1983. RFC 855 Telnet option specifications. J. Postel, J.K. Reynolds. May-01-1983. RFC 857 Telnet echo option. J. Postel, J.K. Reynolds. May-01-1983. RFC 858 Telnet Suppress Go Ahead option. J. Postel, J.K. Reynolds. May-01-1983.

FTP Server/Client	RFC 1350, The TFTP Protocol (Revision 2). K. Sollins. July 1992. FTP server is in boot loader only.
Web Server and Web Based Configuration	RFC 1945, Hypertext Transfer Protocol -- HTTP/1.0. T. Berners-Lee, R. Fielding, H. Frystyk. May 1996. RFC 2068, Hypertext Transfer Protocol -- HTTP/1.1. R. Fielding, J. Gettys, J. Mogul, H. Frystyk, T. Berners-Lee. January 1997. (Not full support). RFC 2617, HTTP Authentication: Basic and Digest Access Authentication. J. Franks, P. Hallam-Baker, J. Hostetler, S. Lawrence, P. Leach, A. Luotonen, L. Stewart. June 1999.
PC Driver	Microsoft RNDIS USB driver
Environmental Operating Range	Operating Temperature: 0-40 degrees Celsius Humidity: 8-95% non-condensing
Power Requirements	Operating voltage: +12V DC +- 5% @600mA max

USB/Ethernet DSL Modem with Routing Capabilities

Minimum System Requirements

- PC or Macintosh with Ethernet or PC with available USB port

- Microsoft Windows 98, 98SE, Me, 2000, XP, Vista; Mac OS 9 or higher; Linux/BSD, Unix (USB: Windows 98SE, Me, 2000 XP)

- TCP/IP network protocol installed

- Internet Explorer 4.0+ or Netscape 4.0+

Package Contents

- Actiontec USB/Ethernet DSL Modem

- Quick Start Guide

- Ethernet Cable

- USB Cable

- 4 pack of In-line Microfilters

- User Manual

- Power Cord

- DSL Cable

  Note: Customers may request customized self-install kit configuration

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